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International Student Symposium *"Hortus Academicus"*
March 31, 2017, Bucharest, Romania

Possible rootstocks from Dobrogea area for Chinese jujube (*Ziziphus jujuba* Mill.)

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Introduction

- Chinese jujube (*Ziziphus jujuba* Mill.) is recognized as the most important *Ziziphus* species for fruit production in the buckthorn family, *Rhamnaceae* (Gao *et al*., 2013). Botanically, *Ziziphus jujuba* is derived from the wild species of jujube (*Z. spinosa*) (Yao, 2012).
- The Chinese jujube was first spread to all over China, then to neighboring countries such as Japan and Korea, to be introduced later through the famous "Silk Road" in Europe at the beginning of the Christian Era (Liu *et. al*., 2020).
- In Romania, jujubes were introduced through the "Silk Road" about 2000 years ago. The Chinese jujube is found in the Dobrogea area, located in Jurilovca, near Doloșman Cape, on the shores of Lake Razim, where there are the ruins of ancient Greek, Roman and Byzantine peoples, but also in Ostrov (Stanica, 2019).

Materials and Methods

- The experience is located in village Agigea (44.080226657366744, Northern latitude and 28.62256413602548 Eastern longitude), Dobrogea region, within the Research-Development Station for Fruit Growing Constanta. The site has an average altitude of 30 m and is situated about 2 km from the Black Sea. This is a semi-arid region with a climatic water deficit. The zonal soil type is a calcaro-calcic chernozem formed on loess, with loam texture and a proper capacity of water preserving, holding and circulation. The humus content ranges between 2.5 and 4%; pH of the soil is poor alkaline (7.0-8.1) (Paltineanu *et al.*, 2007).
- The harvest of wild *Ziziphus jujuba* from Jurilovca, Tulcea and *Paliurus spina-christi* from Cerna, Tulcea for rootstocks started at the end of 2020. The Ostrov genotype has been in the station yard since 1970 and has root suckers and will be used as rootstocks.
- Rootstocks are to be grafted with different varieties from the jujube collection of the Faculty of Horticulture, USAMV Bucharest.
- 2 varieties (Xuan Cheng Jiang Zao and Dong Zao) obtained *in vitro* will be planted.

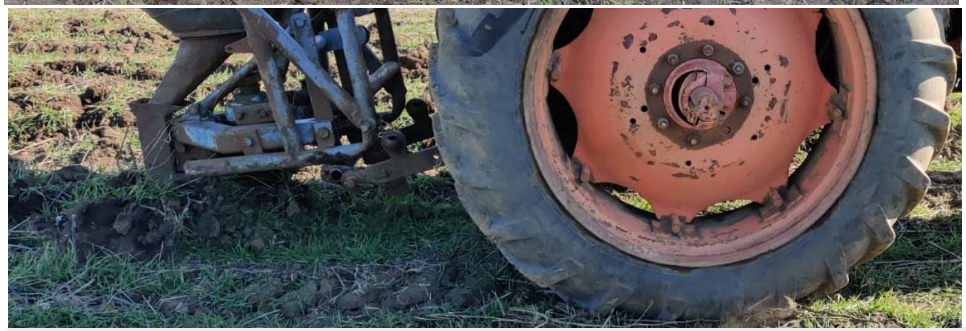
International Student Symposium *"Hortus Academicus"* April 16, 2021 - Bucharest, Romania

- The experience was placed in a plot that has 7 rows and 38 trees per row with planting spacings of 4m x 1.5m.
- In March, began picketing the plot, making holes with a mechanical drill. Planting of rootstocks began near the end of the month as follows :
  - 1 row of *Paliurus Spina-Christi*;
  - 1 row of *Ziziphus jujuba*, variety Xuan Cheng Jiang Zao ;
  - 1 row of *Ziziphus jujuba*, variety Dong Zao ;
  - 1 row of *Ziziphus jujuba* Ostrov genotype;
  - 2 rows of *Ziziphus jujuba* Jurilovca genotype;
  - 1 row of *Paliurus Spina-Christi*.

Results and discussions

Planting

- Before planting, I started scarifying it to a depth of 40-50 cm, I picketed the plot, made the holes of 0.6 cubic m with the help of a mechanical drill at the distances specified above. The pits are filled with original soil mixed with manure.



- Next step was mudding to wich I added manure. After this I distributed the trees to the pits according to the planting scheme.

Aspects from planting

Conclusions and recommendations

- Planting was successfully, without any losses and the next point is grafting with Hu Ping Zao, Hongan, June Zao varieties.

Thank you for your attention!

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